FIG. 1

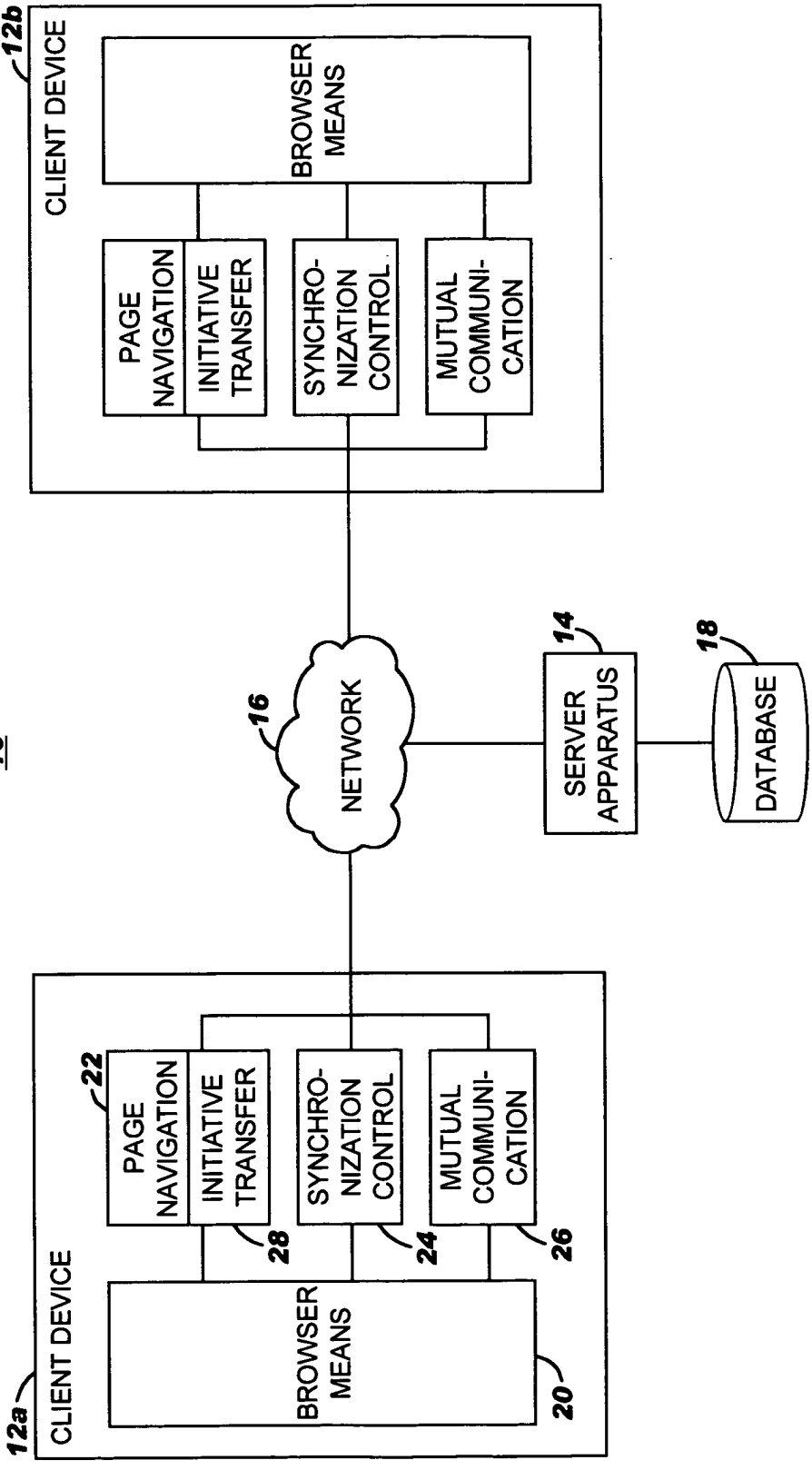

10
12b
CLIENT DEVICE
BROWSER MEANS
PAGE NAVIGATION
INITIATIVE TRANSFER
SYNCHRO-NIZATION CONTROL
MUTUAL COMMUNI-CATION
16
NETWORK
14
SERVER APPARATUS
18
DATABASE
12a
CLIENT DEVICE
22
PAGE NAVIGATION
INITIATIVE TRANSFER
SYNCHRO-NIZATION CONTROL
MUTUAL COMMUNI-CATION
28
24
26
BROWSER MEANS
20

FIG. 2

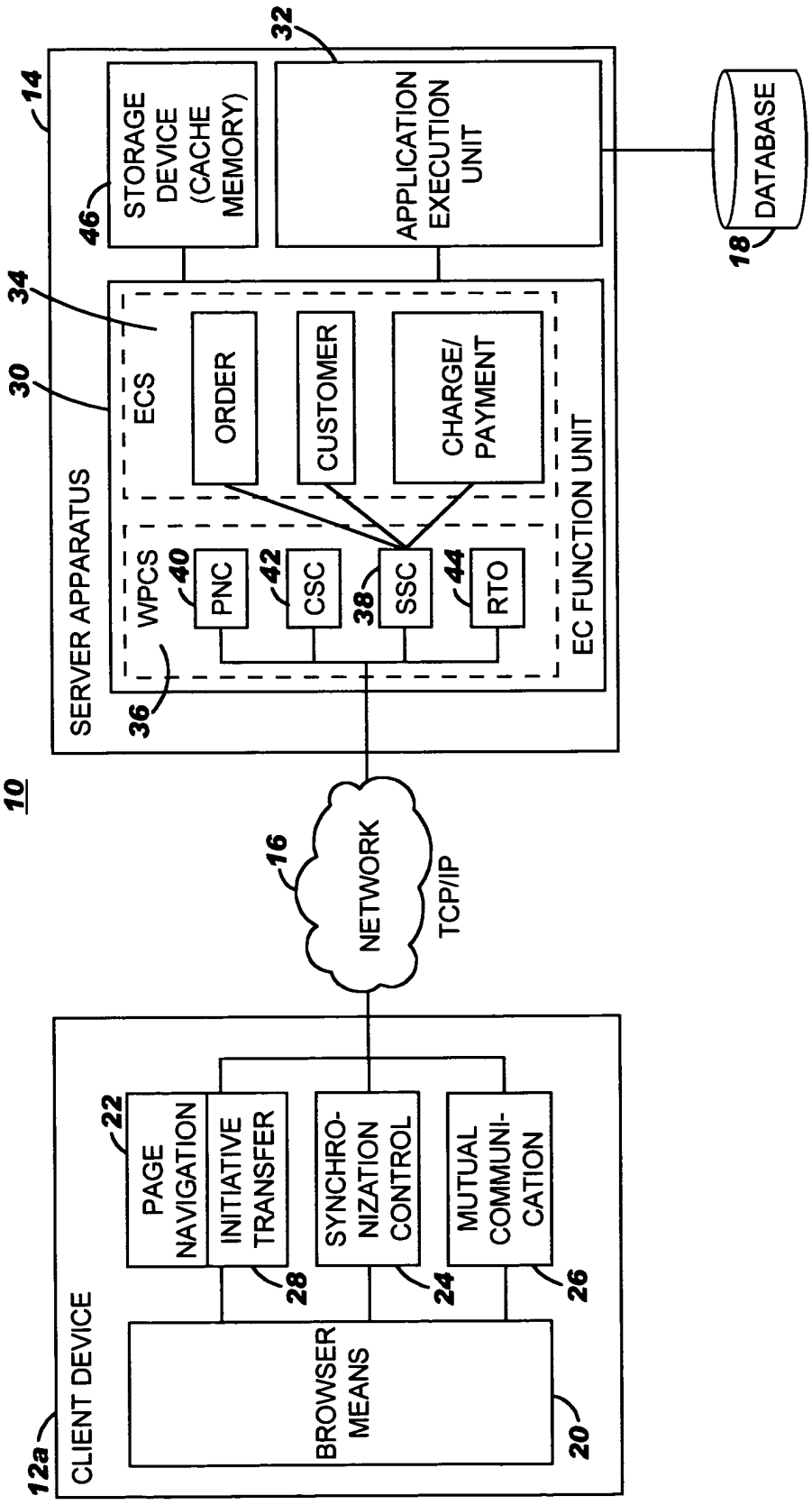

10
SERVER APPARATUS
14
STORAGE DEVICE (CACHE MEMORY)
46
APPLICATION EXECUTION UNIT
32
DATABASE
18
34
30
ECS
ORDER
CUSTOMER
CHARGE/ PAYMENT
EC FUNCTION UNIT
WPCS
40
PNC
42
CSC
38
SSC
44
RTO
36
NETWORK
TCP/IP
16
CLIENT DEVICE
12a
22
PAGE NAVIGATION
INITIATIVE TRANSFER
28
SYNCHRO-NIZATION CONTROL
24
MUTUAL COMMUNI-CATION
26
BROWSER MEANS
20

FIG. 3

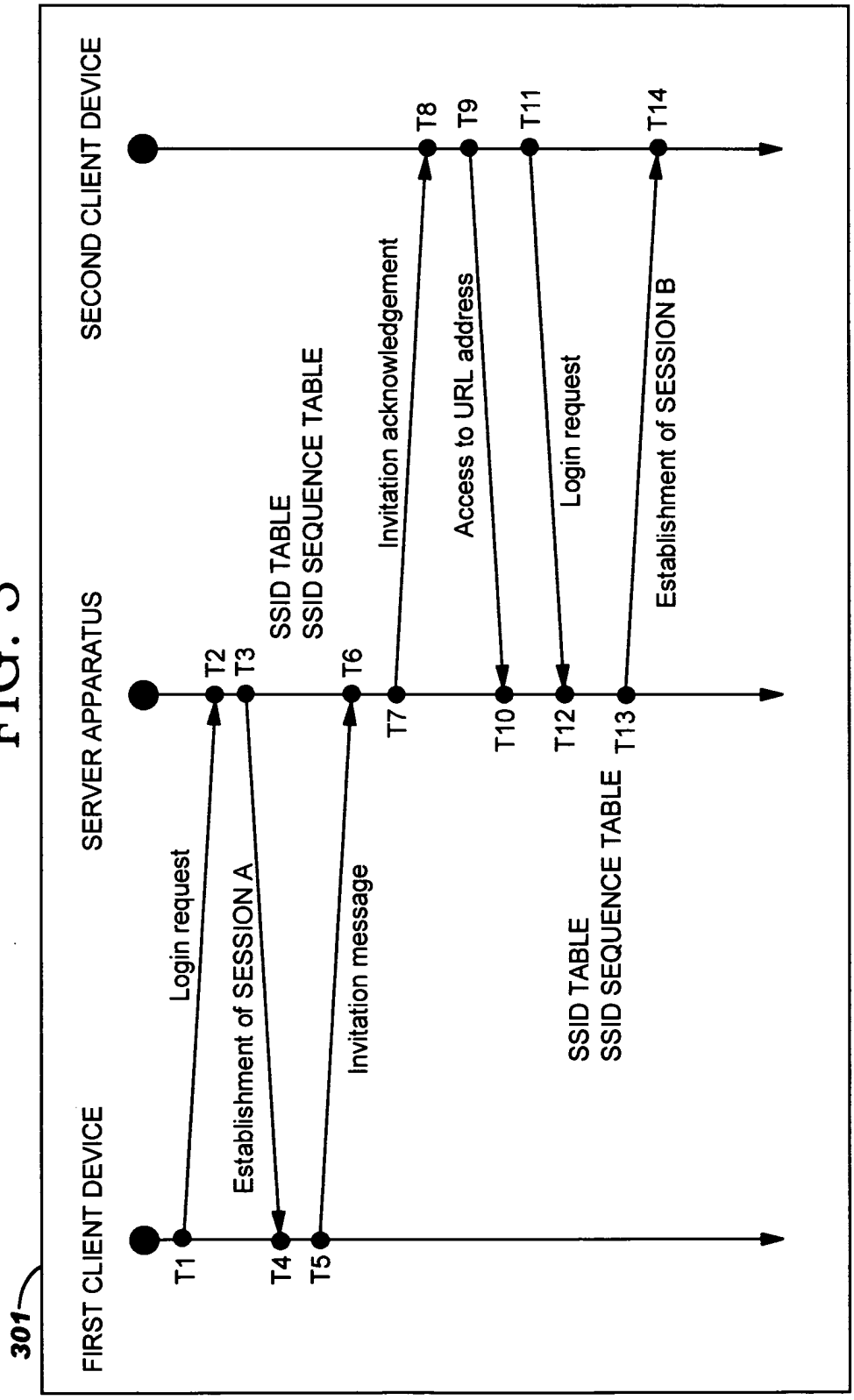

301
FIRST CLIENT DEVICE
SERVER APPARATUS
SECOND CLIENT DEVICE
T1
T2
T3
T4
T5
T6
T7
T8
T9
T10
T11
T12
T13
T14
Login request
Establishment of SESSION A
Invitation message
SSID TABLE
SSID SEQUENCE TABLE
Invitation acknowledgement
Access to URL address
Login request
SSID TABLE
SSID SEQUENCE TABLE
Establishment of SESSION B

FIG. 4A

SSID TABLE

401

SSID	Session 1	Session 2	Session 3
SSID a	Session A	Session B	
b5543212	56890543	345890	

FIG. 4B

SSID SEQUENCE TABLE

403

Session	SEQUENCE	IP	INITIATIVE
SessionA		1.2.3.4	A
SessionB		2.3.4.5	I

FIG. 5

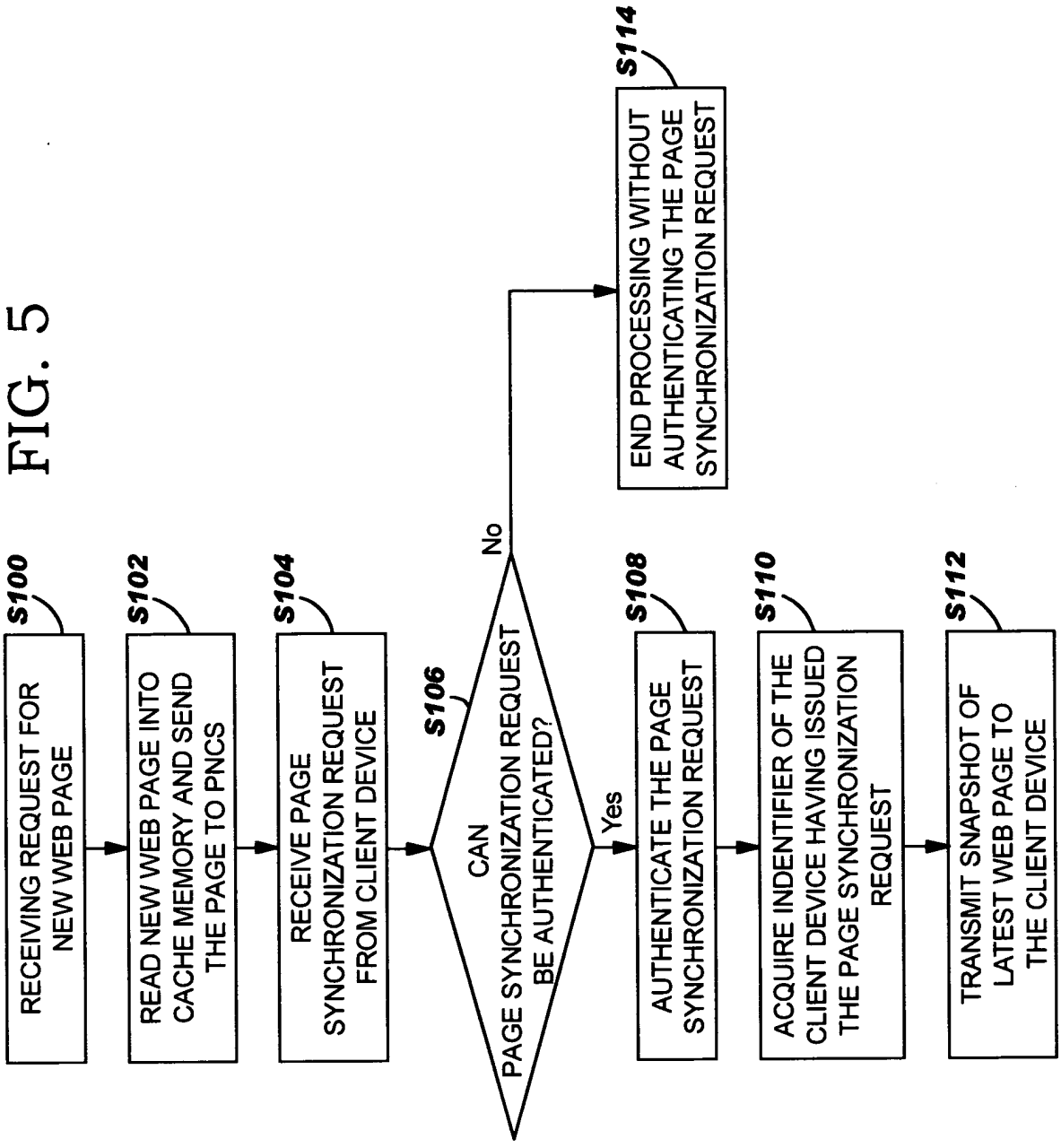

S100
RECEIVING REQUEST FOR NEW WEB PAGE
S102
READ NEW WEB PAGE INTO CACHE MEMORY AND SEND THE PAGE TO PNCS
S104
RECEIVE PAGE SYNCHRONIZATION REQUEST FROM CLIENT DEVICE
S106
CAN PAGE SYNCHRONIZATION REQUEST BE AUTHENTICATED?
No
Yes
S114
END PROCESSING WITHOUT AUTHENTICATING THE PAGE SYNCHRONIZATION REQUEST
S108
AUTHENTICATE THE PAGE SYNCHRONIZATION REQUEST
S110
ACQUIRE INDENTIFIER OF THE CLIENT DEVICE HAVING ISSUED THE PAGE SYNCHRONIZATION REQUEST
S112
TRANSMIT SNAPSHOT OF LATEST WEB PAGE TO THE CLIENT DEVICE

FIG. 6

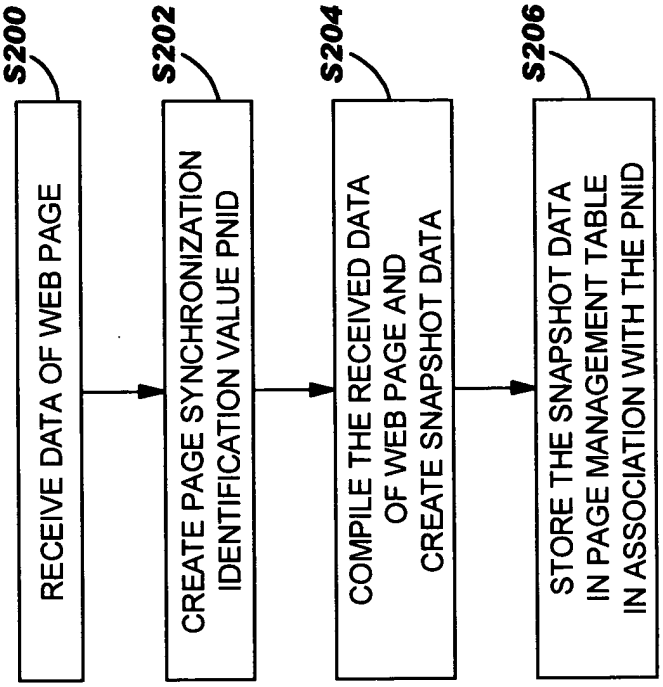

S200
RECEIVE DATA OF WEB PAGE
S202
CREATE PAGE SYNCHRONIZATION IDENTIFICATION VALUE PNID
S204
COMPILE THE RECEIVED DATA OF WEB PAGE AND CREATE SNAPSHOT DATA
S206
STORE THE SNAPSHOT DATA IN PAGE MANAGEMENT TABLE IN ASSOCIATION WITH THE PNID

FIG. 7

701

SSID	PNID	DEDICATED URL ADDRESS
A	234566	http://host.app_path/SSID A/default.jsp/abcdefgh
A	234438	http://host.app_path/SSID A/default.jsp/abhfygkm
B	222489	http://host.app_path/SSID B/default.jsp/cedflmkg
. . .	. . .	. . .

FIG. 8

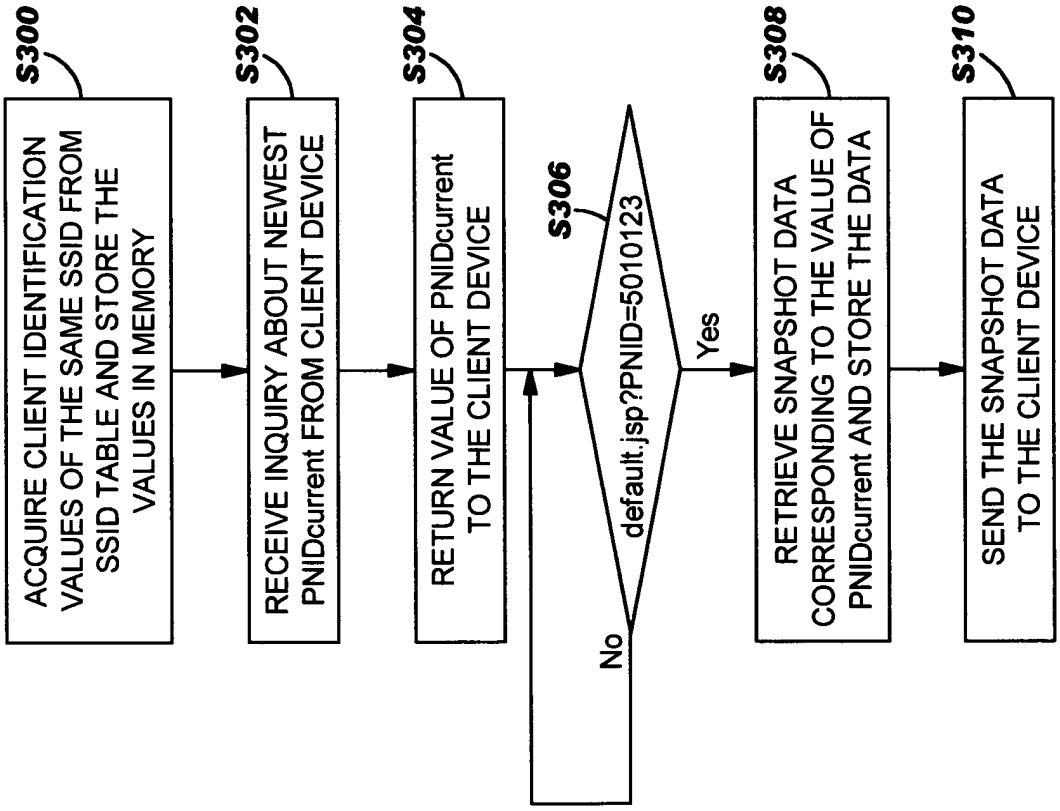

S300
ACQUIRE CLIENT IDENTIFICATION VALUES OF THE SAME SSID FROM SSID TABLE AND STORE THE VALUES IN MEMORY
S302
RECEIVE INQUIRY ABOUT NEWEST PNIDcurrent FROM CLIENT DEVICE
S304
RETURN VALUE OF PNIDcurrent TO THE CLIENT DEVICE
S306
default.jsp?PNID=5010123
Yes
No
S308
RETRIEVE SNAPSHOT DATA CORRESPONDING TO THE VALUE OF PNIDcurrent AND STORE THE DATA
S310
SEND THE SNAPSHOT DATA TO THE CLIENT DEVICE

FIG. 9

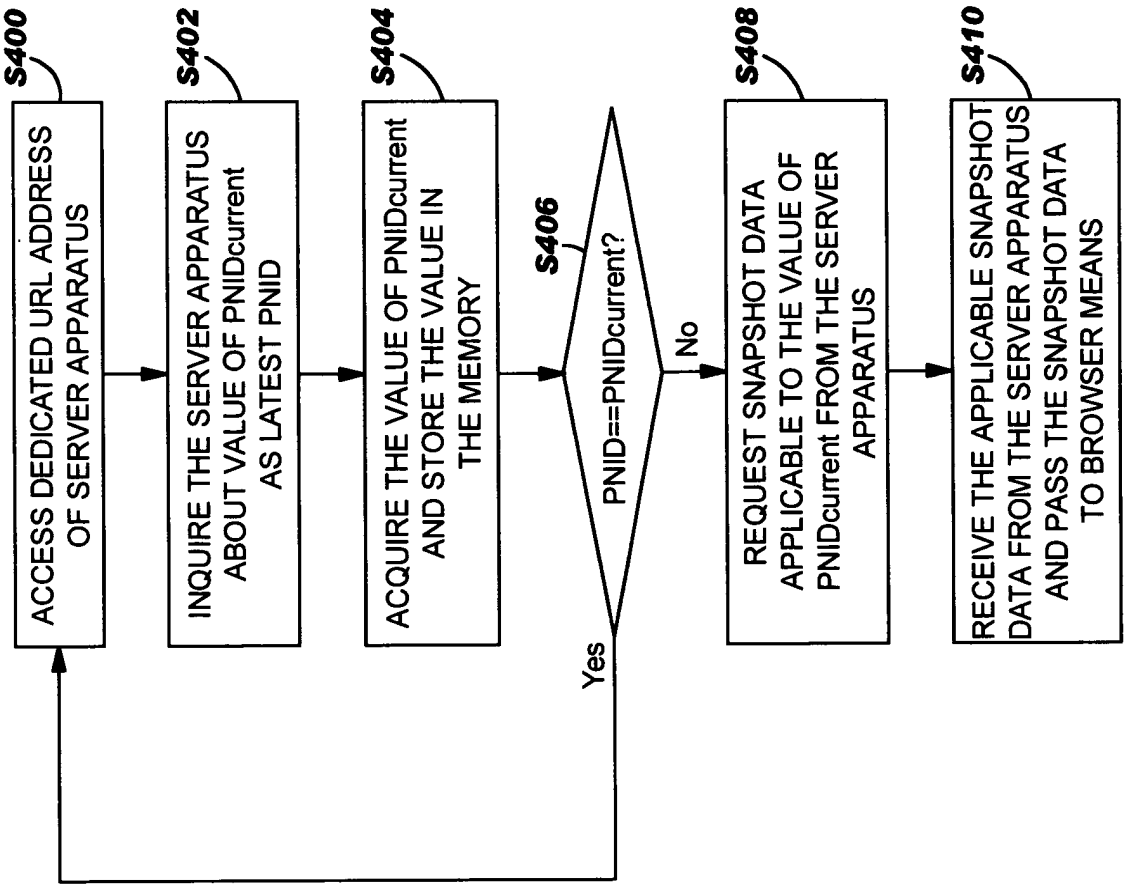

S400
ACCESS DEDICATED URL ADDRESS OF SERVER APPARATUS
S402
INQUIRE THE SERVER APPARATUS ABOUT VALUE OF PNIDcurrent AS LATEST PNID
S404
ACQUIRE THE VALUE OF PNIDcurrent AND STORE THE VALUE IN THE MEMORY
S406
PNID==PNIDcurrent?
Yes
No
S408
REQUEST SNAPSHOT DATA APPLICABLE TO THE VALUE OF PNIDcurrent FROM THE SERVER APPARATUS
S410
RECEIVE THE APPLICABLE SNAPSHOT DATA FROM THE SERVER APPARATUS AND PASS THE SNAPSHOT DATA TO BROWSER MEANS

FIG. 10

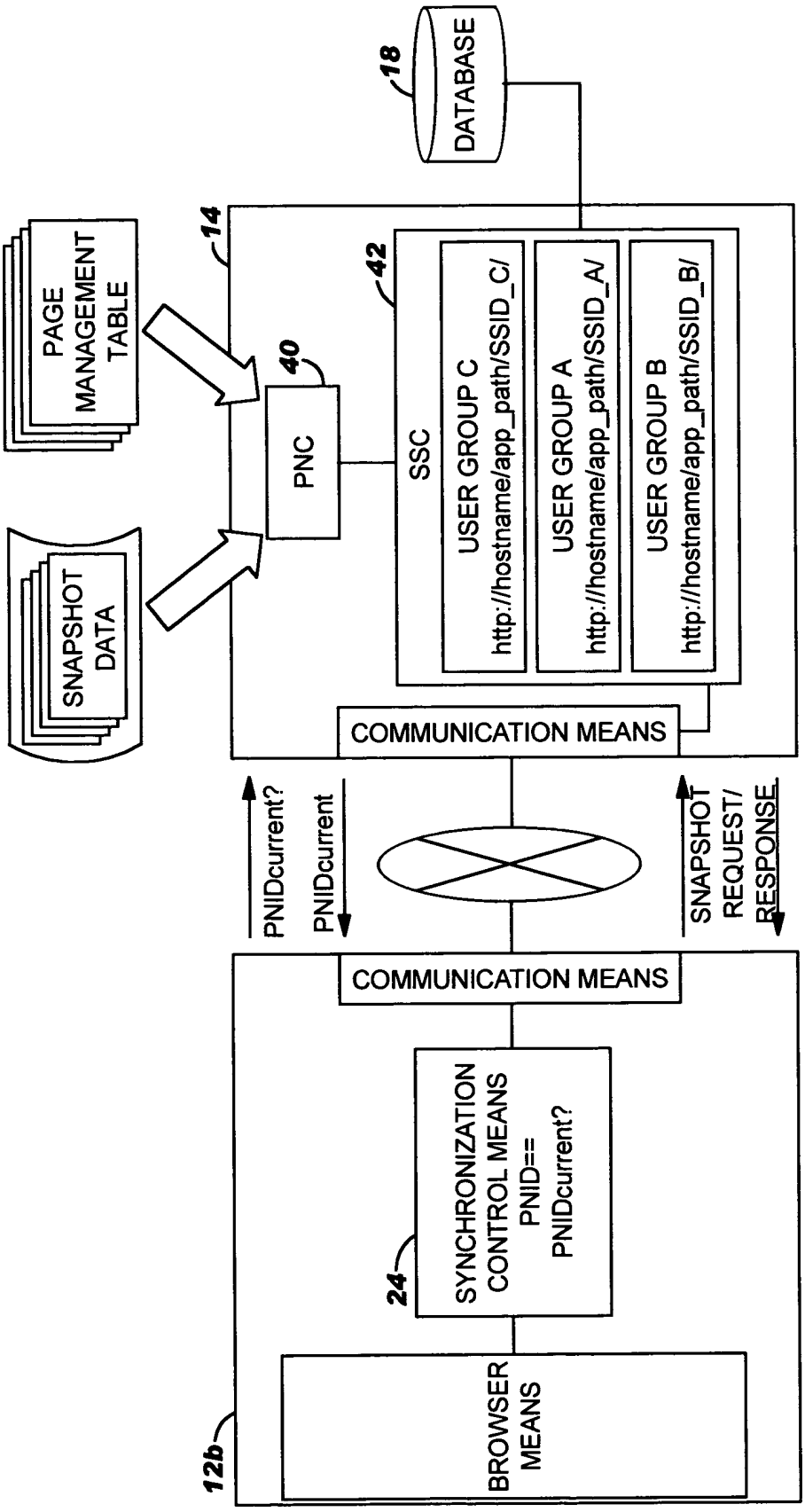

18
DATABASE
14
42
PAGE MANAGEMENT TABLE
40
PNC
SSC
USER GROUP C
http://hostname/app_path/SSID_C/
USER GROUP A
http://hostname/app_path/SSID_A/
USER GROUP B
http://hostname/app_path/SSID_B/
SNAPSHOT DATA
COMMUNICATION MEANS
PNIDcurrent?
PNIDcurrent
SNAPSHOT REQUEST/ RESPONSE
COMMUNICATION MEANS
24
SYNCHRONIZATION CONTROL MEANS
PNID==
PNIDcurrent?
12b
BROWSER MEANS

FIG. 11

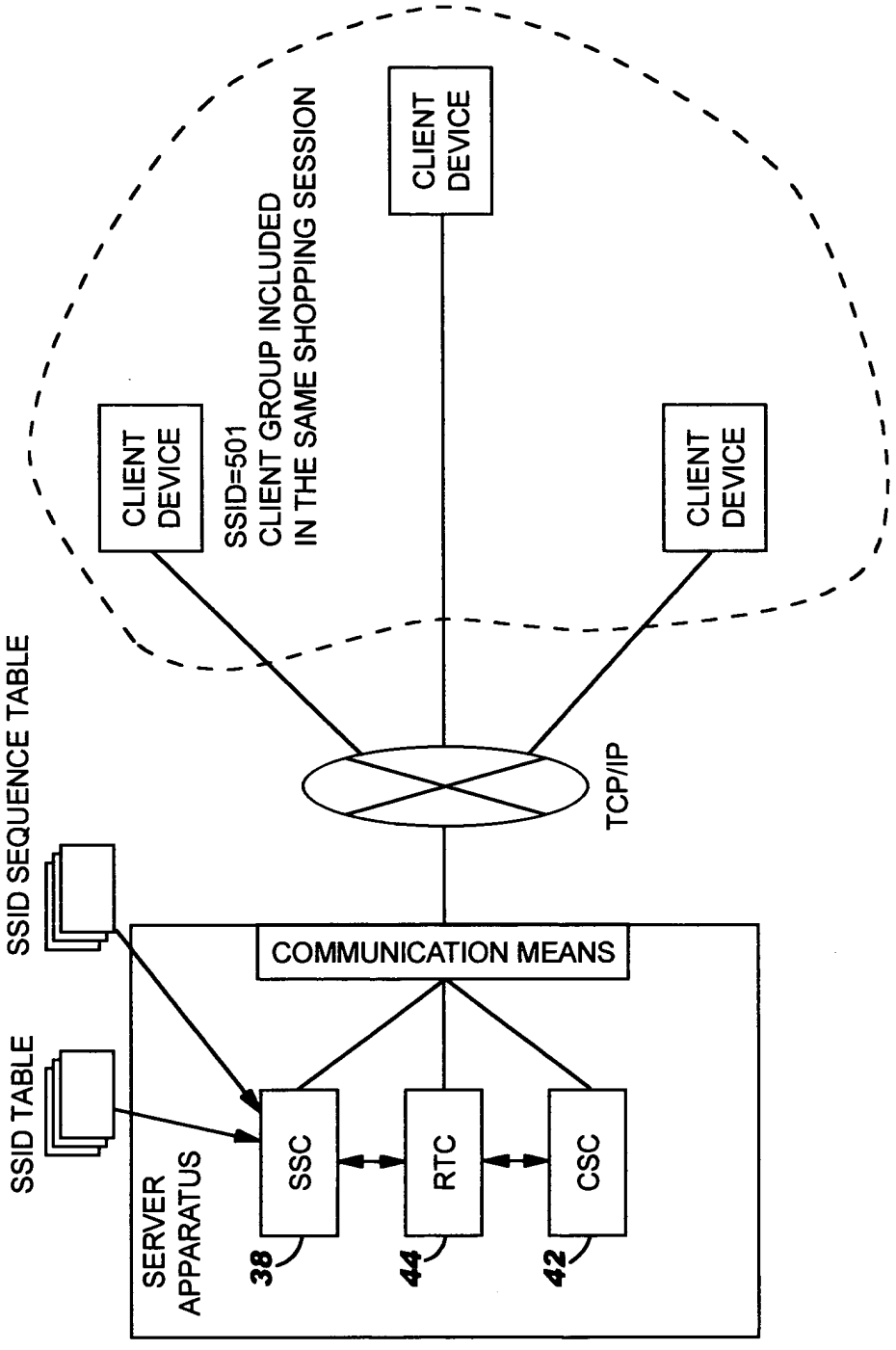
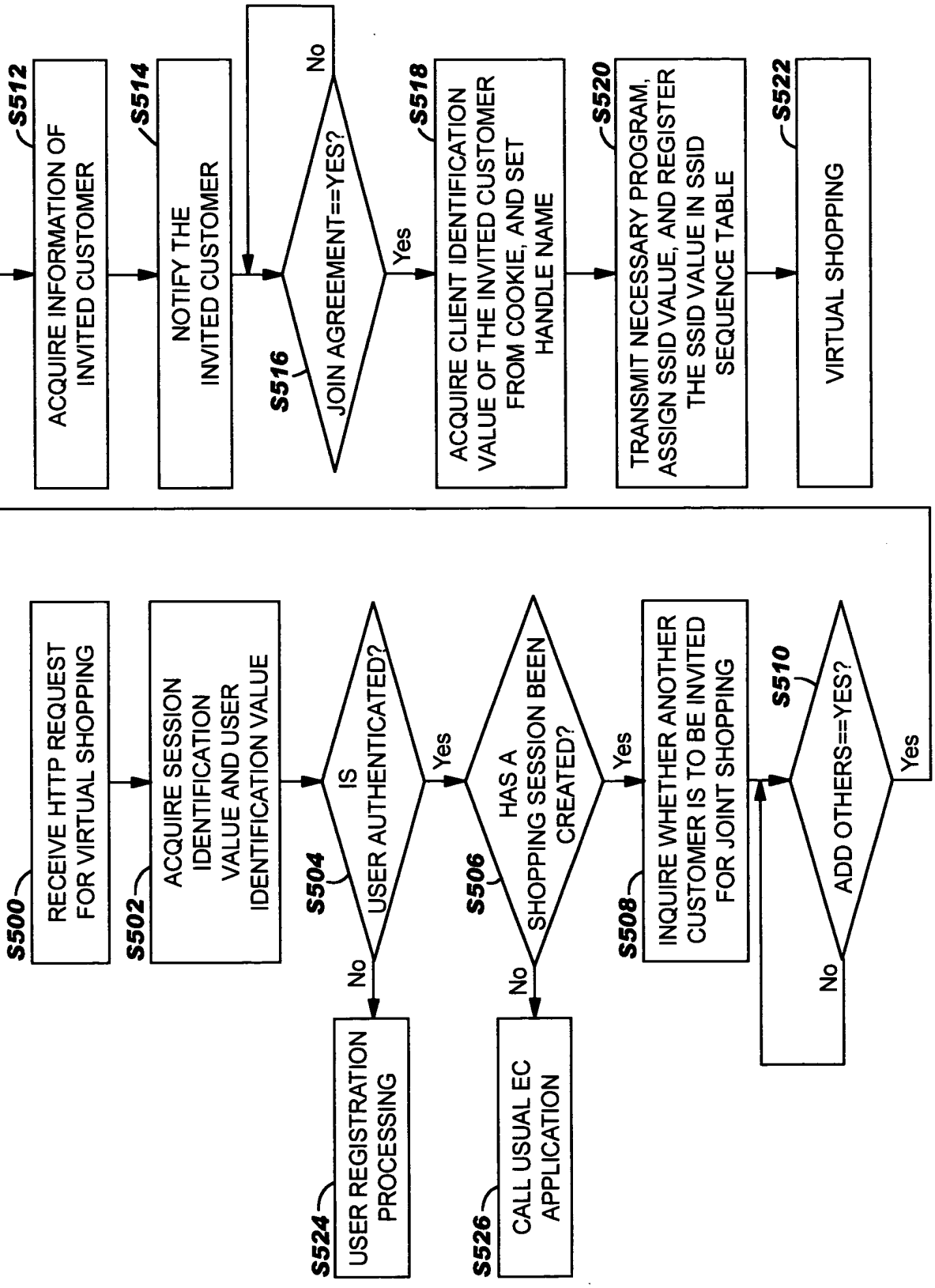

CLIENT DEVICE
CLIENT DEVICE
CLIENT DEVICE
SSID=501
CLIENT GROUP INCLUDED
IN THE SAME SHOPPING SESSION
TCP/IP
SSID SEQUENCE TABLE
SSID TABLE
COMMUNICATION MEANS
SSC
RTC
CSC
SERVER APPARATUS
38
44
42

FIG. 12


S500
RECEIVE HTTP REQUEST FOR VIRTUAL SHOPPING
S502
ACQUIRE SESSION IDENTIFICATION VALUE AND USER IDENTIFICATION VALUE
S504
IS USER AUTHENTICATED?
Yes
No
S506
HAS A SHOPPING SESSION BEEN CREATED?
Yes
No
S508
INQUIRE WHETHER ANOTHER CUSTOMER IS TO BE INVITED FOR JOINT SHOPPING
S510
ADD OTHERS==YES?
Yes
No
S512
ACQUIRE INFORMATION OF INVITED CUSTOMER
S514
NOTIFY THE INVITED CUSTOMER
S516
JOIN AGREEMENT==YES?
Yes
No
S518
ACQUIRE CLIENT IDENTIFICATION VALUE OF THE INVITED CUSTOMER FROM COOKIE, AND SET HANDLE NAME
S520
TRANSMIT NECESSARY PROGRAM, ASSIGN SSID VALUE, AND REGISTER THE SSID VALUE IN SSID SEQUENCE TABLE
S522
VIRTUAL SHOPPING
S524
USER REGISTRATION PROCESSING
S526
CALL USUAL EC APPLICATION

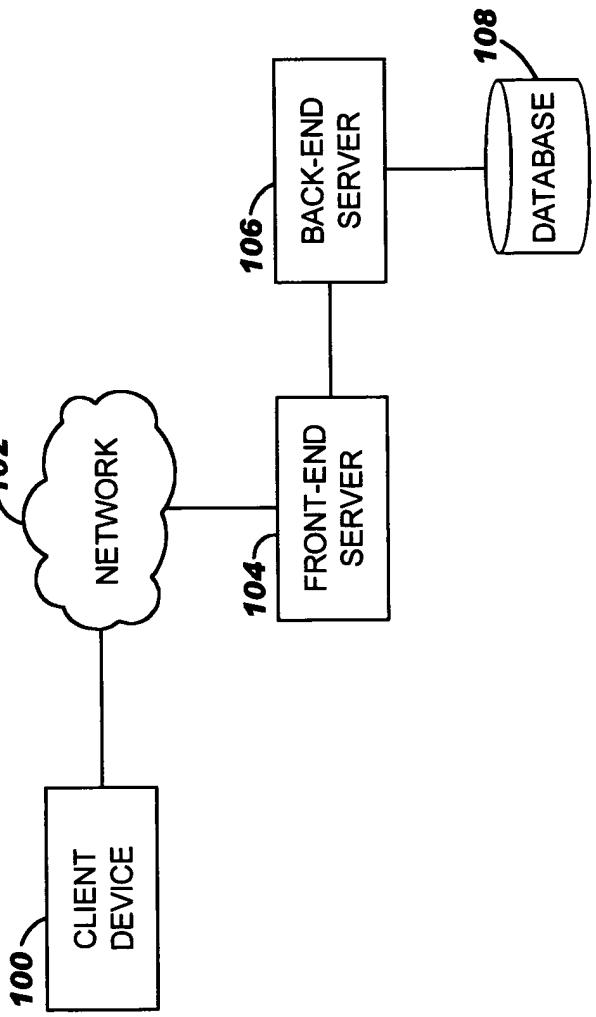


FIG. 13
Prior Art